Amended Claims as of March 17, 2005

1. A selection system comprising a bacterial cell deficient of an *ara*D gene into which a vector carrying an *ara*D gene, or a catalytically active fragment thereof has been added as a selection marker.

2. A selection system according to claim 1, wherein the *ara*D gene is L-ribulose-5-phosphate 4-epimerase gene (EC 5.1.3.4.).

3. A selection system according to claim 1 or 2, wherein the *ara*D gene is mutated.

4. A selection system according to claim 3, wherein the mutation introduces a stop codon into position 8 of the *ara*D gene.

5. A selection system according to claim 1, wherein the bacterial cell is an *Escherichia coli* cell.

6. A selection system according to claim 5, wherein the *E. coli* is an *E. coli* strain JM109.

7. A selection system according to claim 5, wherein the *E. coli* is an *E. coli* strain DH5 alpha.

8. A vector comprising an mutated *ara*D gene with a stop codon at position 8, or a catalytically active fragment thereof as a selection marker.

9. A vector according to claim 8, wherein the vector is an expression vector comprising:
(a) a DNA sequence encoding a nuclear-anchoring protein operatively linked to a heterologous promoter, said nuclear-anchoring protein comprising (i) a DNA binding domain which binds to a specific DNA sequence, and (ii) a functional domain that binds to a nuclear component, or a functional equivalent thereof; and
(b) a multimerized DNA sequence forming a binding site for the nuclear anchoring protein, wherein said vector lacks a papilloma virus origin of replication, and
(c) the mutated *ara*D gene, or a catalytically active fragment thereof as a selection marker.

10. A vector according to claim 9, wherein the vector is an expression vector comprising:
(a) DNA sequence encoding a nuclear-anchoring protein operatively linked to a heterologous promoter, wherein the nuclear-anchoring protein is the E2 protein of Bovine Papilloma Virus type 1 (BPV), and

(b) a multimerized DNA sequence forming a binding site for the nuclear anchoring protein is of multiple binding sites the BPV E2 protein incorporated into the vector as a cluster, where the sites can be as head-to-tail structures or can be included into the vector by spaced positioning, wherein said vector lacks a papilloma virus origin of replication, and
(c) the mutated *ara*D gene, or a catalytically active fragment thereof as a selection marker.

11. A vector of claim 10 additionally comprising a deletion in the multimerized DNA sequence.

12. A vector of claim 10 additionally comprising a mutation in Shine-Dalgarno sequence.

13. Use of a vector comprising an *ara*D gene, a mutated form of an *ara*D gene, or a catalytically active fragment thereof as a selection marker, in a selection system.

14. Use of a vector according to claim 13 in a selection system, wherein the vector is an expression vector comprising:
(a) a DNA sequence encoding a nuclear-anchoring protein operatively linked to a heterologous promoter, said nuclear-anchoring protein comprising (i) a DNA binding domain which binds to a specific DNA sequence, and (ii) a functional domain that binds to a nuclear component, or a functional equivalent thereof; and
(b) a multimerized DNA sequence forming a binding site for the nuclear anchoring protein, wherein said vector lacks a papilloma virus origin of replication, and
(c) the *ara*D gene, a mutated form of an *ara*D gene, or a catalytically active fragment thereof as a selection marker.

15. Use of a vector according to claim 14 in a selection system, wherein the vector is an expression vector comprising:
(a) DNA sequence encoding a nuclear-anchoring protein operatively linked to a heterologous promoter, wherein the nuclear-anchoring protein is the E2 protein of Bovine Papilloma Virus type 1 (BPV), and
(b) a multimerized DNA sequence forming a binding site for the nuclear anchoring protein is of multiple binding sites the BPV E2 protein incorporated into the vector as a cluster, where the sites can be as head-to-tail structures or can be included into the vector by spaced positioning, wherein said vector lacks a papilloma virus origin of replication, and
(c) an *ara*D gene, a mutated form of an *ara*D gene, a complementary sequence thereof, or a catalytically active fragment thereof as a selection marker.

16. Use of a vector of claim 15 in a selection system, wherein the vector additionally comprises a deletion in the multimerized DNA sequence.

17. Use of a vector of claim 15 in a selection system, wherein the vector additionally comprises a mutation in Shine-Dalgarno sequence.

18. Use of *E. coli* strain AG1 deficient of the *ara*D gene in a selection system.

19. Use of *E. coli* strain JM109 deficient of the *ara*D gene in a selection system.

20. Use of *E. coli* strain DH5alpha-T1 deficient of the *ara*D gene in a selection system.

21. *E. coli* strain DH5alpha-T1 deficient of the *araD gene and ulaF* gene.

22. *E. coli* strain DH5alpha-T1 deficient of the *ara*D gene and sgbE gene.

23. *E. coli* strain DH5alpha-T1 deficient of the *ara*D gene, *ulaF* gene, and sgbE gene.

24. *E. coli* strain AG1 deficient of the *araD gene and ulaF* gene.

25. *E. coli* strain AG1 deficient of the *ara*D gene and sgbE gene.

26. *E. coli* strain AG1 deficient of the *ara*D gene, *ulaF* gene, and *sgb*E gene.

27. Use of *E. coli* strain DH5alpha-T1 deficient of the *araD gene and ulaF* gene in a selection system.

28. Use of *E. coli* strain DH5alpha-T1 deficient of the *ara*D gene and sgbE gene in a selection system.

29. Use of *E. coli* strain DH5alpha-T1 deficient of the *ara*D gene, *ulaF* gene, and sgbE gene in a selection system.

30. Use of *E. coli* strain AG1 deficient of the *araD gene and ulaF* gene in a selection system.

31. Use of *E. coli* strain AG1 deficient of the *ara*D gene and sgbE gene in a selection system.

32. Use of *E. coli* strain AG1 deficient of the *ara*D gene, *ulaF* gene, and *sgb*E gene in a selection system.

33. A method of selecting the cells transformed with a plasmid containing an *ara*D gene, or a catalytically active fragment thereof as a selection marker and the gene of interest, the method comprising inserting the plasmid into the *ara*D deficient host cell and growing the cells in a growth medium containing arabinose.

34. A method of claim 33 wherein the *ara*D gene is L-ribulose-5-phosphate 4-epimerase gene (EC 5.1.3.4.).

35. A method of claim 33 or 34, wherein the *ara*D gene is mutated.

36. A method of claim 35, wherein the mutation introduces a stop codon into position 8 of the *ara*D gene.